



## President's Corner

VOMARC will be hosting its first Christmas Party in several years this month. We'll gather at Mary's Pizza Shack at **6:00 PM on Wednesday, December 20th**. Please note the start time! This is in line with what we've done in the past, but is different from our normal meeting time.

Please wear your VOMARC name tag, or any other name tag, if you have one.

The results from your 2024 officer elections have been tabulated. You can see the results later in this newsletter. The run for President was a close one. Although I received a plurality of votes, neither candidate received more than 50% for a clear win. I think that's a clear mandate for a change in the direction of the club. Given this outcome, I'm tendering my resignation as President effective at the end of the year or whenever a replacement can be selected.

Over the course of the next few weeks I'll attempt to gather up as much documentation as possible to allow your 2024 officers to continue serving you with as little disruption as possible. I will happily provide assistance to the officers behind the scenes as needed.

It will be up to the Board to decide what to do about the vacant office of President. I want to

thank all of the other officers for continuing to serve the club!

—By Robert KA5WSS

### NEXT MEETING

Wed, **December 20, 2023** at 6:00 PM  
Christmas Party 2023

**Location:** Mary's Pizza Shack, 18636 Sonoma Hwy, Boyes Hot Springs

## Minutes of the November 15, 2023 Meeting

**IN ATTENDANCE:** KA5WSS (Robert), W1EJ (Ed), KD6FIL (Dave), AK6RF (Matt), KM6URP (Kathy), W8EWL (John), NJ6E (Stan), N7PIB (Sanford), W6DDU (Gordon), N6LY (Liz), K6YD (Kevin), KE6HID (Andrew), KB6CLV (Simon), KG5SGO (Robert)

### BUSINESS AND OFFICER REPORTS

Adopt meeting minutes as published in the newsletter? Motion made and Seconded-Approved

### OFFICER REPORTS

**NEWSLETTER EDITOR** - Eileen, KG6QNT

**ACS LEAD** - Moe, KI6JNU

Dan on vacation. Looking for radio parts at Cotati.

**VE LIAISON** - Elizabeth, N6LY

Oct 28 test session results - 1 tester

Next year's sessions probably start in January.  
More later.

**RADIO OFFICER** - Mike, WB6TMH

Weekly Net Control

This month - Mike, WB6TMH

Next month - Darrel WD6BOR

**TRUSTEE** - Darrel, WD6BOR

Status of DMR Repeater?

**SECRETARY/TREASURER** - Dave, KD6FIL

Bank balance: \$3,615

Need to request the insurance for the Hamfest

**VICE PRESIDENT** - Ed, W1EJ

President - Robert, KA5WSS

Nominations for 2024 officers.

President - Darrel WD6BOR, KA5WSS

Vice President - Kathy KM6URP, W1EJ

Secretary/Treasurer - KD6FIL

VE Liaison - N6LY

Radio Officer - WB6TMH

Newsletter Editor - KG6QNT

Christmas Party voting results.

1. Yes **(14 votes, 53.8%)**
2. No **(7 votes, 26.9%)**
3. Maybe **(5 votes, 19.2%)**

December 20th. At Mary's Pizza Shack.

Anyone have contact info for Jim's family? A family friend reached out wanted to get in touch with Judy. Email Dave with contact info.

**OTHER BUSINESS:**

N6LY made a motion to send \$200 to FISH. No objections.

N6LY and K6YD December 1st POTA activation from Alcatraz.

## ANNOUNCEMENTS

Next month's meeting topic: Christmas Party

Mystery Box drawing - Joe (N7TSQ) has it.

Meeting Topic - IOTA Program

—Submitted by Dave KD6FIL

## 2024 Officer Election Results

Here are the screenshots taken from the Ham Club Online website showing the results of your 2024 VOMARC Officer Elections. In the end, 53% of eligible voters cast a ballot.

President

1. Robert Barron KA5WSS **(19 votes, 47.5%)**
  2. Darrel Jones WD6BOR **(15 votes, 37.5%)**
  0. Abstain **(6 votes, 15.0%)**
- (Write-ins were allowed, but none were cast.)

Vice President

1. Ed Jacobson W1EJ **(26 votes, 65.0%)**
  2. Kathy Funke-Spicher KM6URP **(9 votes, 22.5%)**
  0. Abstain **(5 votes, 12.5%)**
- (Write-ins were allowed, but none were cast.)

Secretary Treasurer

1. Dave Dammuller KD6FIL **(39 votes, 97.5%)**
  0. Abstain **(1 vote, 2.5%)**
- (Write-ins were allowed, but none were cast.)

VE Liaison

1. Elizabeth Morris-Stephens N6LY **(37 votes, 92.5%)**
  0. Abstain **(3 votes, 7.5%)**
- (Write-ins were allowed, but none were cast.)

Radio Officer

1. Mike Miller WB6TMH **(36 votes, 90.0%)**
  0. Abstain **(4 votes, 10.0%)**
- (Write-ins were allowed, but none were cast.)

Newsletter Editor

1. Eileen Adams KG6QNT (37 votes, 92.5%)
  0. Abstain (3 votes, 7.5%)
- (Write-ins were allowed, but none were cast.)

—Submitted by Robert KA5WSS

## BANDWIDTH LIMITS REPLACE SYMBOL RATES ON THE HF BANDS

*From the ARRL Letter:* The Federal Communications Commission (FCC) published new rules adopted last month that replace the symbol rate restrictions on the HF bands with a bandwidth limit of 2.8 kHz. The new rules go into effect January 8, 2024.

The bands and band segments affected by the rules change are those authorized for data transmission between 160 and 10 meters, exclusive of 60 meters (where no change was made).



In adopting a bandwidth limit in place of the baud rate limit the FCC agreed with ARRL that some limitation is necessary because "without a baud rate or bandwidth limit, data stations using a large amount of spectrum for a single emission could do so to the detriment of simultaneous use by other stations using narrowband emission modes."

ARRL has advocated for this change for a long time. The move opens amateur data communications to faster and more modern modes and restores the incentive for amateurs to experiment with and develop faster and more efficient data methods. Previously, ARRL

obtained waivers to the symbol rate rules on a case-by-case basis to facilitate communications during situations like hurricane responses. These delays will now be removed, permitting drills to be conducted with the faster modes and more timely responses when needed.

—Submitted by Robert KA5WSS

## SOTA 10M Challenge

The [Summits on the Air](#) (SOTA) program is offering a 10M Challenge from January 1st through December 31st, 2024.



Cycle 25 may peak in the middle of 2024. Conditions may not be this good on 10M for perhaps 10 years afterwards.

The usual SOTA rules will apply and scoring will be automatic for QSOs uploaded to the SOTA website. Electronic certificates will be awarded to participants.

—Submitted by Robert KA5WSS

## Ham Jargon

From the ARRL Contest newsletter:

### Off Time

Periods of non-operation during a contest. Operation includes the activity of listening, so listening during off-times is not allowed.

—Submitted by Robert KA5WSS

# Sonoma County GMRS Repeaters

Table 1 — GMRS Repeaters in Sonoma County (as of February 2023)

Area	Repeater	Tag	RX Freq.	TX Freq.	TX CTSS	RX CTSS	Channel	Online
Coastal Hills	Fort Ross	FR RPT	462.575	467.575	173.8	192.8	16	Yes
Coastal Hills	Timber Cove	TC RPT	462.575	467.575	167.9	192.8	16	Yes
Coastal Hills	Muniz	MZ RPT	462.575	467.575	162.2	192.8	16	Yes
Cazadero	Wildwood	WW RPT	462.600	467.600	173.8	192.8	17	Yes
Cazadero	Mohrhardt	MH RPT	462.600	467.600	167.9	192.8	17	Yes
Cazadero	Teravana	TV RPT	462.600	467.600	162.2	192.8	17	No
Cazadero	Sheridan	SHERID	462.600	467.600	156.7	192.8	17	Yes
Lower Russian River	Overlook	OL RPT	462.625	467.625	173.8	192.8	18	Yes
Lower Russian River	Siri	SI RPT	462.625	467.625	167.9	192.8	18	No
Lower Russian River	Mt. Jackson	MTJKSN	462.625	467.625	162.2	192.8	18	No
Occidental	Fitz Joy	FJ RPT	462.650	467.650	173.8	192.8	19	Yes
North County	Shellenger	SH RPT	462.700	467.700	173.8	192.8	21	Yes
North County	Ida Clayton	SIC RPT	462.700	467.700	167.9	192.8	21	No
North County	Hilltop	FITCH	462.700	467.700	162.2	192.8	21	Yes
East County	Los Alamos	ALAMOS	462.725	467.725	156.7	192.8	22	Yes
W SR	SIMPLEX (delay)		462.725		No tone	No tone	22	Yes

-- Submitted by Dave (KD6FIL) and Andrew (KE6HID)

## Misc

- The American Radio Relay League (ARRL), in cooperation with national organizations in Great Britain, Ireland and Sweden, has developed a new PDF document to [help Amateurs interact with neighbors asking about RF transmissions](#).
- Dave (KD6FIL) passes along a link to the [Autumn edition of the Northern California DX Foundation's newsletter](#).

—Submitted by Robert KA5WSS

## On The Air

- Carl (N6TTV)** made 311 QSOs in [CW Sweepstakes](#). He found the Saturday conditions fantastic but things fell off sharply on Sunday. He also made about 70 contacts in [Phone Sweepstakes](#). He made a couple hundred contacts in the [CQWW CW](#) contest, including a new mode country. Conditions on the 160M contest only allowed for US and Canadian contacts. He did pick up a new country recently - Kuwait. He made 326 CW contacts

during the ARRL 10M Contest, covering 22 countries.

- Also during the [ARRL 10M Contest](#), **Dave (KD6FIL)** made 41 contacts, including with stations in Maine, Florida and Argentina all



while operating QRP. It looks like he had a great view from his operating position as well.

- Sanford (N7PIB)** has worked at least 3,378 parks as part of the [Parks on the Air](#) (POTA) program.
- John (W8EWL)** plans on putting up a horizontal end fed antenna to augment his vertical antennas already installed.
- Frank (KG6N)** worked country #320, PR0T on [Trindade & Martin Vaz Islands](#). He also discovered he needs to repair his HexBeam.
- Robert (KA5WSS)** made 14 contacts in the [Phone JA International DX Contest](#) and 347 contacts in the [FT Roundup](#). He also made 146 QSOs in the [Phone Sweepstakes](#), working 66 sections. During [CQWW CW](#) he managed 79 QSOs and confirmed his 100th CW DXCC country. Using both CW and SSB he made 212 contacts during the ARRL 10M Contest.

—Submitted by Robert KA5WSS



## Autumn 2023 Newsletter is now available



Dear NCDXF Contributor,

The Autumn 2023 NCDXF Newsletter is now available. It's a BIG issue!

Please use this link to access all NCDXF Newsletters, including this new issue:

<http://www.ncdxf.org/pages/newsletter.html>

Look on the page for 2023 and click on the box for **Autumn**.

Or download it using this direct link:

<http://www.ncdxf.org/newsletters/2023-AUTUMN.pdf>

Articles included in this issue are:

**Crozet Island, FT8WW Amateur Radio in the Middle of Nowhere** by Thierry Mazel, F6CUK/FT8WW

**From the President's desk** by Kevin Rowett, K6TD

**NCDXF Fund for DQRM grant available**

**CYØS Sable Island 2023** by Jay Slough, K4ZLE

**50 Years Ago A Blast From the Past** November 13, 1973

**VP6A – RIB DXpedition to Ducie Island** by George Wallner, AA7JV

**A Remote Operator's Perspective on VP6A** by Don Greenbaum, N1DG

**A Double DXpedition VU7W, Lakshadweep Islands** by Yuris Petersons, YL2GM

**Saint Brandon Island, 3B7M** by Lubo Martiska, OM5ZW

**TN8K, Republic of the Congo** by the TN8K Team

**Cycle 25 Fund & Cycle 25 Society**

**DXpedition Lending Library**

**NCDXF Contribution & Order Form**

**Qualified Charitable Distribution (QCD)**

Your contributions enable NCDXF to support its mission and this newsletter. The last page of the Newsletter has a form you can use when making contributions or ordering supplies. It can be printed and mailed, or you can use the following link to contribute on-line:

<http://www.ncdxf.org/pages/contribute.html>

THANK YOU for your support and enjoy the Newsletter!

Best DX and 73,  
NCDXF

—Submitted by Dave KD6FIL

# Phased Verticals

-- Submitted by John W8EWL

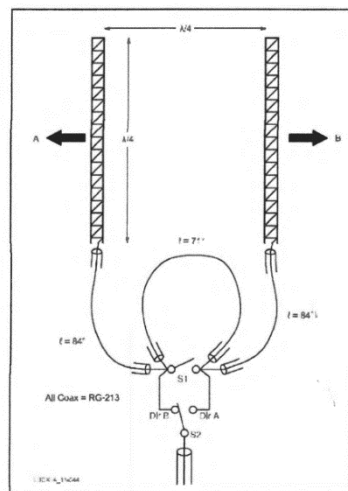
I have experienced a very high level of RFI in the house. I do not know whether it was due to the solar system on the roof, the HVAC system which is all electrical, the internet router, or the wired smoke detectors. The only way I was able to eliminate the RFI was by turning off a number of breakers. Obviously, this was not a good solution for the other occupants of the house.

Therefore, I decided to put the antennas as far away from the house as possible...200 feet. I had previously built a DX Commander all-band vertical, and a 10-meter vertical dipole. I wanted a 20-meter antenna with some gain, and the ability to change direction, but I did not want to raise a tower to support a beam. The lack of available tree branches in the right spots dictated that the new antenna would have to be a vertical. But, how to get some directionality and gain from a vertical? The solution was a two-element phased vertical array that could be switched from NNE (Europe) to SSW (Australia/New Zealand), and even broadside (South America/Japan).

With antennas 200 feet away, I did not look forward to running that distance to switch coax cables to select the various antennas. Obviously, I needed a remote antenna switch. A little online shopping indicated they were rather expensive, but I found a Kit on eBay from OK2ZI for around \$50, including the circuit board, relays and detailed instructions.

That would take care of the various antenna selections, but now I had to figure out how to feed the phased verticals so they would radiate in the appropriate directions. There is a plethora of information in the ARRL antenna book, and in the wonderful "Low Band DXing", by ON4UN, (great ideas, not only for the low bands) but I found it difficult to understand. I then found some videos on YouTube which

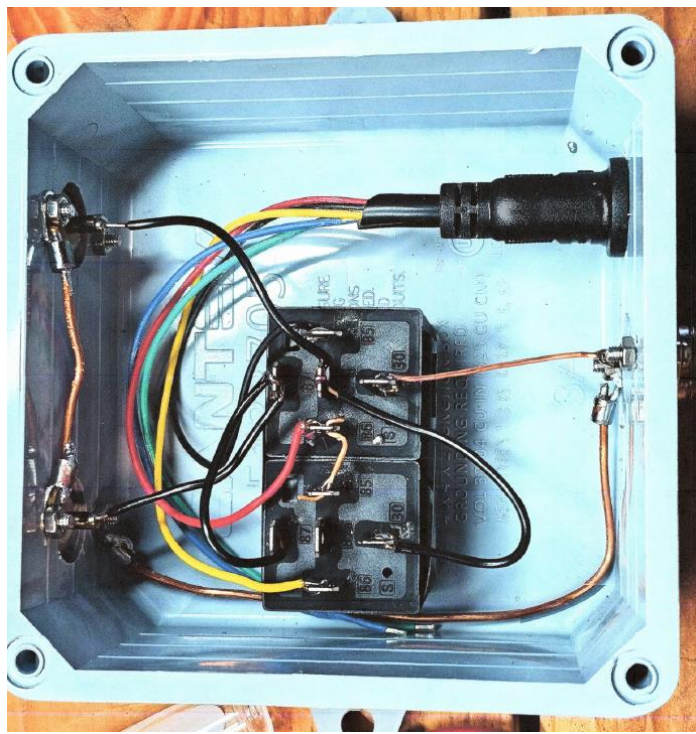
explained a relatively simple method of determining the length of the feed lines, the Christman System. Exhibit 1:



The Christman system for a 2 element phased array vertical

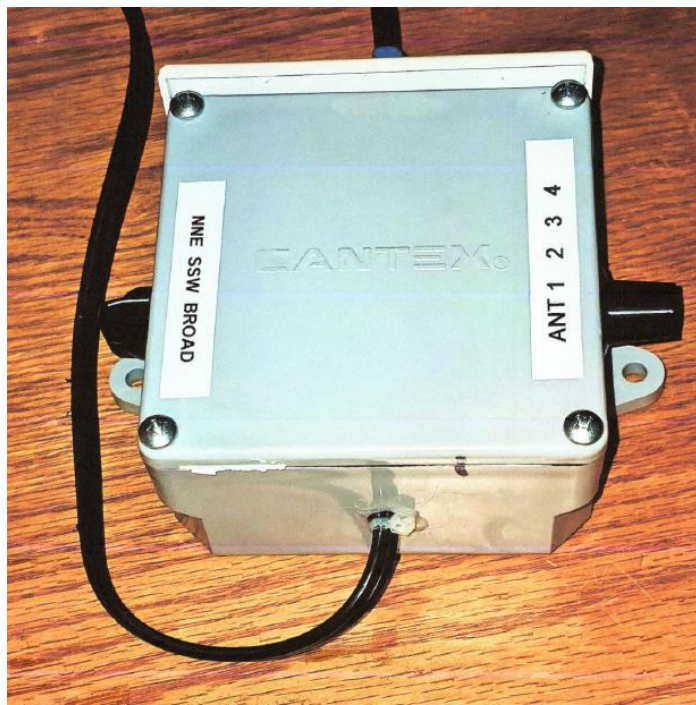
Broad side is easy...equal feed lines for both antennas. However, to get maximum directionality, and the 3 dB gain and a decent F/B ratio, one of the elements must be fed  $\frac{1}{4}$  wave (90 degrees) behind the other. It becomes complicated when you have to take into account the velocity factor of the coax. Fortunately, there is a calculator on VA7ST.ca, a Christman Phasing Calculator, that produces the exact length of the 84-degree feed lines and the 71-degree phasing line. Cut the coax with the known velocity factor to within  $\frac{1}{8}$ ", and you are good to go. The only challenge at this point is to make sure that the elements are as similar as can be in terms of R and X.

At this point, I needed a remote method of switching the phasing line from one element to another. Fortunately, YouTube came to the rescue again. I was able to build a remote switching box using a pair of cheap 12v auto relays, and some coax connectors. Exhibit 2:



Now, all I needed was a way to remotely select either of three antennas and, If I selected the phased verticals, to have the ability to switch the phasing line in or out.

I built a control box using a couple of wafer switches allowing me to do just that. Exhibit 3:



Now all I needed was a 7-conductor wire to run the 200 feet from the operating position to the two remote switches. The cheapest

weatherproof cable I could find was cat 6 cable. I purchased 150 feet...which turned out to be too short. However, not all is lost. This gave me an opportunity to learn how to attach RJ45 connectors to cat 6 cables.

Finally accomplished, I needed to make it all weatherproof. And I needed an antenna tuner of some type to match the phased verticals to a 50-ohm load. And a coax choke balun to keep the rf inside the feed line. A plastic storage container provided plenty of room for all of the components...not an elegant solution, but it worked. Exhibit 4:

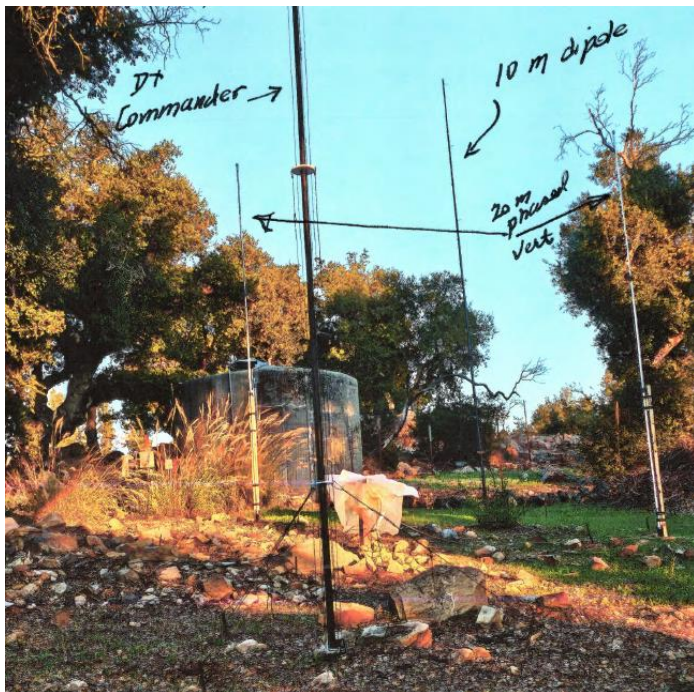


Because the phasing box had to be mounted a fixed distance from the verticals, around 11 feet, I mounted the storage container on a short piece of 4x4 and covered it with a plastic bag for weatherproofing. This is a temporary solution which I hope to fix before the big rains. Exhibit 5:





I believe the results were worth the effort involved. It is satisfying to switch between the DX commander all-band vertical, and the 10-meter vertical dipole, and experience a 2 or 3 S unit difference. And I was pleasantly surprised by the F/B ratio of the phased vertical array. A good 4 to 5 S units between the NNE and the SSW. Exhibit 6:



One of the advantages of the 10-meter vertical dipole...you don't need any radials. Just a

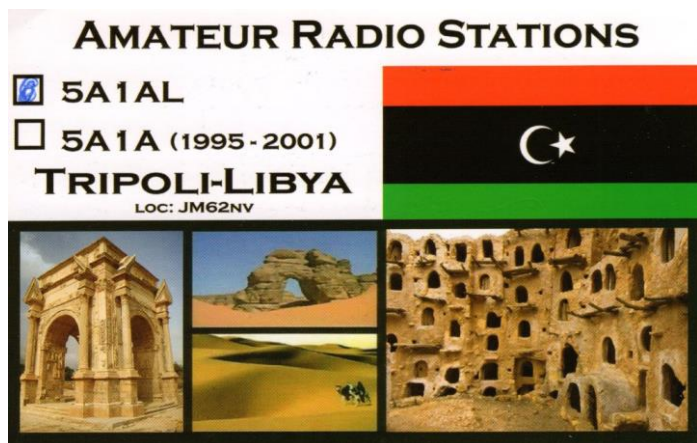
fiberglass pole at least 20 feet long, and a piece of coax.

But if you do decide to erect a vertical with radials, here a hint...***do not use aluminum electric fence wire for your radials***...it will coil up and won't stay down unless you pin it down with landscaping stakes. Use a very flexible wire that will stay where you put it.

-- Submitted by John W8EWL



# QSL Card Inbox



Here's a new one. 5A1AL is the only station in Libya that I've ever worked. We made an FT8 contact on 15M.



This card confirms contacts with 9Q1AA in the Democratic Republic of the Congo. It confirms QSOs on 15M and 30M using SSB and CW. I also worked 9Q1ZZ on several bands using FT8 but am still awaiting that card. I had made one single contact with a 9Q station many years ago. So this DXpedition filled up plenty of bands and modes I was missing.

—Submitted by Robert KA5WSS

## THE VOMARC WIRELESS

VOLUME 27 EDITION 12

A PUBLICATION OF VOMARC, THE VALLEY OF THE MOON  
AMATEUR RADIO CLUB – W6AJF

Frank C. Jones – W6AJF

Honorary President in Perpetuity

### CAST OF CHARACTERS

Robert Barron KA5WSS – President

Ed Jacobson, W1EJ – Vice President

Dave Dammuller, KD6FIL – Secretary/Treasurer

Mike Miller, WB6TMH – Radio Officer

Moe Llanes, KI6JNU – ACS Unit Leader

Elizabeth Morris-Mowrey, N6LY – VE Liaison

Darrel Jones, WD6BOR – Station Trustee for W6AJF

Eileen Adams, KG6QNT – Editor

Robert Barron, KA5WSS — Webmeister

*"Receipt of the Wireless is one of the most sought after benefits of membership in VOMARC."—S. Marler*

WEB PAGE: <http://www.vomarc.org/>

**Nets** are held every Wednesday night at 19:30 (7:30 P.M.) local, except meeting nights on the 145.350 repeater, -600 kHz, PL 88.5 Hz.

**Breakfast Nets** are held every Tuesday and Saturday morning at 7:30 AM on the 146.205, +600, PL 88.5 Hz repeater.

Comments and submissions of material may be sent to:

[Eileen@vom.com](mailto:Eileen@vom.com)

—Or—

**Valley of the Moon ARC, Inc.**

C/O Sonoma Police Department

175 First Street West

Sonoma, CA 95476

## ACS

### NET CONTROL ASSIGNMENTS

	Name	Call
JANUARY	MOE	KI6JNU
FEBRUARY	SCOTT	KJ6QIQ
MARCH	SCOTT	KJ6QIQ
APRIL	JIM	K6UUW
MAY	DICK	KF6FZM
JUNE	MOE	KI6JNU
JULY		
AUGUST	BILL	KJ6EIG
SEPTEMBER	SAM	W5LTP
OCTOBER	DICK	KF6FZM
NOVEMBER	MIKE	WB6TMH
DECEMBER	DARREL	WD6BOR

## VOMARC

### NET CONTROL ASSIGNMENTS

	Name	Call
JANUARY	ROBERT	KA5WSS
FEBRUARY	DARREL	WD6BOR
MARCH	MOE	KI6JNU
APRIL	DAVE	KD6FIL
MAY	ED	W1EJ
JUNE	FRANK	KG6N
JULY	ED	W1EJ
AUGUST	CARL	N6TTV
SEPTEMBER	ED	W1EJ
OCTOBER	JOHN	W8EWL
NOVEMBER	MIKE	WB6TMH
DECEMBER	DARREL	WD6BOR

## VOMARC MEMBERSHIP 2023

Membership Dues: \$15/year individual; \$5/year family member at same address.

VOMARC encourages its members to join the ARRL. More information is available at [www.arrl.org](http://www.arrl.org).

QST is available to blind and physically handicapped individuals on audio cassette from the Library of Congress, National Library Service for the Blind and Physically Handicapped. Call 1-800-424-8567.

Name: \_\_\_\_\_ CALL: \_\_\_\_\_ EMAIL: \_\_\_\_\_

Address: \_\_\_\_\_ APT: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP: \_\_\_\_\_

Name: \_\_\_\_\_ CALL: \_\_\_\_\_ EMAIL: \_\_\_\_\_

Name: \_\_\_\_\_ CALL: \_\_\_\_\_ EMAIL: \_\_\_\_\_

VOMARC Membership: Complimentary with Class—Date: \_\_\_\_\_

Membership Moment, From the Database Queen:

Dues may be mailed to VOMARC in care of the Sonoma Police Department, 175 1<sup>st</sup> St West, CA 95476, or brought to the next meeting. Your check should be made payable to: **VOMARC**.